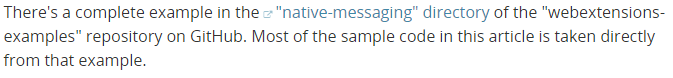
Use native messaging to send a message from the SaveAssist extension to a native app. <https://developer.mozilla.org/en-US/Add-ons/WebExtensions/Native_messaging>



Firefox needs to know the location of the native app to run for a related extension. It looks to the registry to determine the location of the app. I created a file that will add the necessary Windows registry keys for the SaveAssist app, “AddSaveAssistKeys.reg”.

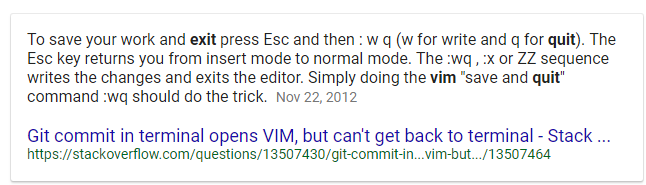
<https://developer.mozilla.org/en-US/Add-ons/WebExtensions/Native_manifests#Manifest_location>

Gettting started with development:

1. Working with the Python script
   1. Open Windows PowerShell
   2. Navigate to the directory with the Python script:  
      C:\Program Files (x86)\Mozilla Firefox\extensions\SaveAssist

Working with Git

Tip: When attempting to input a commit message, Git may take you to the VIM editor. To get out and apply the message, press Escape and type ZZ. See the image below.



Program Design

1. The extension watches for DOM img tags in the webpage.
2. When a DOM img tag is detected, content script is injected that adds items to the right-click context menu. Specifically, the option to activate the SaveAssist program. Two options are given.
   1. QuickSave – Save the file to the last selected folder.
   2. QuickSave… - Choose a new folder and save the file [this is activated automatically if the user has not already chosen a folder].
3. The SaveAssist native application, residing on the user’s computer, is then activated and passed information related to the user command.
4. When saving an image file, SaveAssist saves in the format of SA####.ZZZ, where #### is numeric and ZZZ is the image’s file extension.
   1. The numeric value starts at 0001 unless there are other files in the folder that match the SA#### naming convention. If there are files in the folder that match the naming convention, SaveAssist uses from the last saved file’s numeric value + 1.

SaveAssist Installation Instructions

1. Run the batch file “CreateSaveAssistFolder.bat” with Administrator privileges. This will create a folder on the user’s computer to hold the SaveAssist native app that facilitates the read and write operations of the SaveAssist FireFox extension.

Verify that the batch file has properly copied the files.

1. Run the file “AddSaveAssistKeys.reg”. This will add registry keys to the Windows registry that will show FireFox where the SaveAssist native app is located.
2. Install Python from the installer in the folder.  
   I then ran this tutorial to get Python started: <https://www.digitalocean.com/community/tutorials/how-to-install-python-3-and-set-up-a-local-programming-environment-on-windows-10>